



Application No. 10/646,929  
Filed: Aug. 25, 2003  
Title: Stereo Microscope  
Inventor: Dr. Paul K. Piontkowski  
Examiner: Thong Nguyen  
Group Art Unit: 2872

January 11, 2005

Honorable Commissioner for Patents:

**AMENDMENT AND RESPONSE TO THE OFFICE ACTION  
OF DEC. 22, 2004**

In the specification, please substitute the following amended paragraph [0004] for the paragraph [0004] as originally filed.

[0004] FIG. 1 shows a side elevation of the stereo microscope as taken along the section lines 1---1 in FIG. 2.

In the specification, please substitute the following amended paragraph [0005] for the paragraph [0005] as originally filed.

[0005] FIG. 2 is a plan view of the stereo microscope as taken along the section lines 2---2 in FIG. 1.

In the specification, please substitute the following amended paragraph [0011] for the paragraph [0011] as originally filed.

[0011] Located at one end of the housing 26 and adjacent the objective lens 32 is a light emitting diode (LED) ~~an LED~~ light source 43 which may be either one or a plurality of LED's. However, other light sources may be used. A suitable reflector 46 is positioned in back of the light source 43 and a light filter 44 is located in front of the light source. The light filter is hinged at its upper part and attached to a lever 45 which is located outside the housing 26. By controlling the lever 45, the filter can be positioned either in front of

the light source or out of the way.

Please substitute the following amended paragraph [0013] for the paragraph [0013] as originally filed.

[0013] Fig 4 shows an apparatus support and guidance system for the stereo microscope and is a separate subject of invention as disclosed in copending application serial No. 10/320,385 filed Dec. 17, 2002. A housing 6 on wheels 7 includes a telescoping device 5. The telescoping device may be raised or lowered by means of a rack and pinion, motorized screw or hydraulic piston and cylinder for example. The apparatus may also be supported by attaching an arm of the apparatus to a wall or ceiling mount or to an adjustable in length mount connected to a dental chair accessory pole.

Please substitute the following amended paragraph [0014] for the paragraph [0014] as originally filed.

[0014] A system of arms connects a microscope 18 to the telescoping portion 5. A first arm 1 is connected to the telescoping portion 5 at one end and to a second arm 2 at the other end by a bearing 8. The second arm 2 is connected to a third arm 3 by means of a bearing 9 including a vertical extension 10 at 11. A compressed gas spring 13 is pivotally connected at one end to the vertical extension 10 at 12 and at an opposite end to the third arm 3. The compressed gas spring 13 applies a counterbalancing force which is required for the setting of an equilibrium condition upon alteration of the third arm in a vertical direction. The third arm 3 has a plurality of perforations such as 14 wherein the attached location of the compressed gas spring 13 can be varied to adjust the force applied by the compressed gas spring against the arm 3. A forth arm 4 is attached to the third arm 3 at

one end by a ball joint 15, allowing pivoting in any direction, and the opposite end to the microscope 18 by another ball joint 16. The ball joint 16 ~~includes a~~ includes a combination cage and slide 17 attached to the microscope 18 as shown in Fig. 3. The cage and slide 17 extends through an opening 53 in the upper housing shell 49 and is attached to the rigid strap 47 by screws 54. The cage can move on the slide to help balance the microscope and can be held in place by a locking screw. Arm 2 can rotate 360 degrees at bearing 8, arm 3 can rotate 360 degrees at bearing 9 and arm 4 can rotate 360 degrees at both ball joints 15 and 16. The arm 4 can pivot at ball joints 15 and 16 in any direction.